

Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

November 24, 2014

Mike Butler **EPCOR Water** PO Box 370 Edgewood, NM 87015

TEL: (505) 228-6233

FAX

RE: Edgewood WWTP

OrderNo.: 1411442

Dear Mike Butler:

Hall Environmental Analysis Laboratory received 1 sample(s) on 11/12/2014 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman

Laboratory Manager

artist

4901 Hawkins NE

Albuquerque, NM 87109



Hall Environmental Analysis Laboratory

4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com **Case Narrative**

WO#:

1411442

Date:

11/24/2014

CLIENT:

EPCOR Water

Project:

Edgewood WWTP

Analytical Comments Regarding BOD:

The method blank(s) had a DO depletion >0.2mg/L.

Analytical Report

Lab Order 1411442

Date Reported: 11/24/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EPCOR Water

Edgewood WWTP Project:

Lab ID: 1411442-001 Client Sample ID: Influent

Collection Date: 11/12/2014 11:00:00 AM

Received Date: 11/12/2014 3:12:00 PM

Analyses	Result	RL Qu	al Units	DF Date Analyz	ed Batch
SM5210B: BOD			<u> </u>	-	Analyst: SMS
Biochemical Oxygen Demand	450	2.0	mg/L	1 11/18/2014 11	:58:00 AM 16370
SM 4500 NORG C: TKN					Analyst: SRM
Nitrogen, Kjeldahl, Total	67	2.0	mg/L	1 11/15/2014 1:	42:00 PM 16399

Matrix: AQUEOUS

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range E
- Analyte detected below quantitation limits J
- RSD is greater than RSDlimit
- RPD outside accepted recovery limits R
- Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded Н
- ND Not Detected at the Reporting Limit Page 2 of 4
- Sample pH greater than 2. P
- RL Reporting Detection Limit



ଚଟ୍ୟ ପ୍ରଥ ଅ⊁ ଅସ୍ଥାୟ କର

12065 Lebanon Rd. Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5859 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

November 19, 2014

Hall Environmental Analysis Laborat 4901 Hawkins NE Albuquerque, NM 87109

ESC Sample # :

Date Received Description

November 14, 2014

L733760-01

Site ID :

Sample ID

1411442-001C INFLUENT

Project # :

Collected By

Collection Date :

11/12/14 11:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	770	10.	mg/l	410.4	11/19/14	1

BDL - Below Detection Limit Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 11/19/14 15:37 Printed: 11/19/14 15:37



YOUR LAN OF CHOICE

Hall Environmental Analysis Laboratory

4901 Hawkins NE

Albuquerque, NM 87109

Quality Assurance Report Level II

L733760

12065 Lebanon Rd. Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5859 Fax (615) 758-5859

Tax I.D. 62-0814289

November 19, 2014

Est. 1970

Analyte	Result	Laboratory B. Units	lank k Rec		Limit	Batch Da	te Analyzed
COD	< 10	.mg/1		om year ar y ki y y		wG755289 11	<u>/19/14 1</u> 2:1
nalyte	Units	Duplicate Result Duplic		RPD	Limit	Ref Samp	Batch
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	mg/1 mg/1	9600 9600		0.0	9 15 35 15 15 15 15 15 15 15 15 15 15 15 15 15	L733939-08 L733485-01	WG75528 WG75528
Analyte	Onits	Laboratory Contr Known Val	ol Sampli Resu	e: It	% Rec	Limit	Batch
cop 2 d d servici se di altri di	mg/1	183	189.		103.	90-110	WG75528
Analyte		Laboratory Control Sa Result Ref	mple Dup %Rec	licate	Limit	RPD Limit	
	mg/l	189. 189.	103.		90-110	0.0 5	WG75528
Analyte	Units	Matrix Spi MS Res Ref Res	ke TV	% Rec	Limit	Ref Samp	Batch
GÓD 1973 TANGER AND	mg/1	699. 260,	400	11 ò.	90-110	1733812-01	WG75526
Analyte	Units	Matrix Spike Do	plicate ec	<u>Limi</u> t	RPD	Limit Ref Samp	Batch
G00	mg/l	700, 699. 11	.04 15 55.7	90-110	0.143	5 L733812-01	WĜ7552≀

Batch number /Run number / Sample number cross reference

WG755289: R3005377: L733760-01

^{* *} Calculations are performed prior to rounding of reported values.

* Performance of this Analyte is outside of established criteria.

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

Hall Environmental Analysis Laboratory, Inc.

WO#:

RPDLimit

1411442

24-Nov-14

Client:

EPCOR Water

Project:

Edgewood WWTP

Sample ID MB-16370

SampType: MBLK

Client ID: PBW

Batch ID: 16370

TestCode: SM5210B: BOD RunNo: 22702

Analysis Date: 11/18/2014

SeqNo: 669441 Units: mg/L

Analyte Biochemical Oxygen Demand

Prep Date: 11/13/2014

Result PQL SPK value SPK Ref Val

Sample ID MB--16370

SampType: MBLK Batch ID: 16370

TestCode: SM5210B: BOD

%REC LowLimit

PBW Prep Date: 11/13/2014

Analysis Date: 11/18/2014

RunNo: 22702

Units: mg/L

HighLimit

HighLimit

SeqNo: 669442

LowLimit

LowLimit

89.6

89.6

Analyte

Client ID:

Result PQL SPK value SPK Ref Val ND 2.0

%REC LowLimit

%RPD

%RPD

%RPD

RPDLimit Qual

Qual

Biochemical Oxygen Demand

Sample ID LCS-16370

Client ID: LCSW

SampType: LCS Batch ID: 16370 TestCode: SM5210B: BOD

%REC

RunNo: 22702

Prep Date: 11/13/2014

Analysis Date: 11/18/2014

Result

Result

180

SeqNo: 669443

Units: mg/L HighLimit

126

126

RPDLimit Qual

Biochemical Oxygen Demand Sample ID LCSD-16370

Client ID: LCSS02

Biochemical Oxygen Demand

200 2.0

0 100

SPK value SPK Ref Val

SPK value SPK Ref Val

198.0

198.0

SampType: LCSD Batch ID: 16370

RunNo: 22702

TestCode: SM5210B: BOD

PQL

SeqNo: 669444

Analyte

Analyte

Prep Date: 11/13/2014

Analysis Date: 11/18/2014

2.0

%REC

88.9

n

Units: mg/L HighLimit

%RPD 11.8

RPDLimit Qual

31.9 S

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E
- 1 Analyte detected below quantitation limits
- RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- Value above quantitation range
- Analyte detected in the associated Method Blank Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.

В

Reporting Detection Limit

Page 3 of 4

S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

WO#:

1411442

24-Nov-14

Client:

EPCOR Water

Project:

Edgewood WWTP

Sample ID MB-16399

Prep Date: 11/14/2014

SampType: MBLK

TestCode: SM 4500 Norg C: TKN

RunNo: 22554

Client ID: **PBW** Batch ID: 16399

Analysis Date: 11/15/2014

SeqNo: 665114

Units: mg/L

Analyte

Result PQL

ND

SPK value SPK Ref Val %REC LowLimit

HighLimit

%RPD

RPDLimit

Qual

Nitrogen, Kjeldahl, Total

1.0 SampType: LCS

TestCode: SM 4500 Norg C: TKN

Client ID: LCSW

Batch ID: 16399

RunNo: 22554

Prep Date: 11/14/2014

Sample ID LCS-16399

Analysis Date: 11/15/2014

SeqNo: 665115

Units: mg/L

Analyte

SPK value SPK Ref Val

0

%REC LowLimit

HighLimit %RPD

RPDLimit Qual

10.00

106

120

Nitrogen, Kjeldahl, Total

1.0

80

Oualifiers:

Value exceeds Maximum Contaminant Level.

Value above quantitation range Ε

Analyte detected below quantitation limits J

RSD is greater than RSDlimit 0

RPD outside accepted recovery limits

Spike Recovery outside accepted recovery limits

Analyte detected in the associated Method Blank В

Holding times for preparation or analysis exceeded Н

Not Detected at the Reporting Limit ND

Sample pH greater than 2. P

Reporting Detection Limit

Page 4 of 4



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87105

TEL: 505-345-3975 FAX: 505-345-4107

Sample Log-In Check List

Website: www.hallenvironmental.com

Client Name: EPCOR-EI	DGEWOOD Work Order	Number: 1411442	- -	RcptNo:	1
200	$\geq -nh_{2}$	hrd			
Received by/date:	11/10		-A		
Logged By: Ashley Ga	alleges 11/12/2014 3:	12:00 PM	3		
Completed By: Ashley Ga	allegos 11/12/2014 3:	14:16 PM	A		
Reviewed By:	Hrdu	C154K		<u></u>	
Chain of Custody	\mathcal{J}				
1. Custody seals intact on a	sample bottles?	Yes 🗌	No 🗆	Not Present	
2. Is Chain of Custody com	plete?	Yes 🗹	No 🗆	Not Present	
3. How was the sample deli	ivered?	Client			
<u>Log in</u>					
4. Was an attempt made to	o cool the samples?	Yes 🗹	No 🗆	NA 🗀	
5. Were all samples receive	ed at a temperature of >0° C to 6.	O'C Yes	No 🗹	NA 🗌	
6. Sample(s) in proper con		Yes V	No .	Cimed,	
		<u>_</u>			
7. Sufficient sample volume	• •	Yes 🗹	No ∐		
	A and ONG) property preserved?	Yes 🗹	No 🗆	🗖	
9. Was preservative added	to bottles?	Yes L	No 🗹	NA 🗆	
10.VOA vials have zero hea	dspace?	Yes 🗌	No 🗆	No VOA Vials 🗹	
11, Were any sample contain	iners received broken?	Yes \square	No ₩	# of preserved	
40.5				bottles checked	<u> </u>
12.Does paperwork match to (Note discrepancies on o		Yes 🗹	· No 🗆	for pH:	>12 unless noted)
	entified on Chain of Custody?	Yes 🗹	No 🗆	Adjusted?	10
14. Is it clear what analyses	were requested?	Yes 🗹	No 🗆		0-
15. Were all holding times al (If no, notify customer for		Yes 🗹	No 🗆	Checked by:	<u>C</u>
(it no, notily edistorner to	i augionzauon.)				
Special Handling (if ap	plicable)				
16. Was client notified of all	discrepancies with this order?	Yes 🗀	No 🗆	na 🗹	
Person Notified:		Date:			
By Whom:			one Fax	☐ In Person	
Regarding:					
Client Instructions:					
17. Additional remarks:					
18. Cooler information					
Cooler No Temp *C		No Seal Date	Signed By		
8.2	Good Not Present				

ANALYSIS LABOR ANALYSIS LABOR ANALYSIS LABOR Analing Address DEC 1- Date - D	\ \ \ \			7	•			•	•		Ì
The social state of the so	4/2011 Just 2016					Sisteman		ABORATOR'	Z	<u> </u>	≿
Tel. 505-345-3975 The Container Preservative (BREX + MTBE + TPH (Ges only)) Type and # Type (BREX + MTBE + TPH (Ges only)) Type and # Type (BREX + MTBE + TPH (Ges only))			4901 Ha	www.	ž ,	nbnqn	erque, l	MM 87	109		
The Container Sample: (Application) (Application)	ect #:		Tel. 50	5-345-3	975 An	Fax	505-345-4107 Request	5-4107 st			
Sample: M. Ke Butter Sample: M. Ext. Ext. Ext. Ext. Ext. Ext. Ext. Ext	ect Manager:	(1				(*0:	s				
Sampler: M. Cuttliner Sampler: M. Cuttliner Container Type and # Type and		208) s			(SMIS	2, ₆ 09,	S PCB				
Sample Request ID Container Preservative Type and # Type Type and # Type Type and # Type Type and # Type BTEX + MTBE BTEX + MTBE BOTOS BGS BGS CONTAINED BGS CONT	1	+ TMB			8270		808 / 9	(A			(14 %
Sample Request ID Container Type and # Type Type BTEX + M BTEX + M BTEX + M BTEX + M COntainer Type and # Type COntainer Type and # Type COntainer Type and # Type COntainer Type and # M Type and #		18E			10 OF				à	7	7/ 5/
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11/2/11	- for real	5 NO									

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Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

December 05, 2014

Mike Butler EPCOR Water PO Box 370

Edgewood, NM 87015 TEL: (505) 228-6233

FAX

RE: Edgewood WWTP OrderNo.: 1412110

Dear Mike Butler:

Hall Environmental Analysis Laboratory received 1 sample(s) on 12/2/2014 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman

Laboratory Manager

artifle

4901 Hawkins NE

Albuquerque, NM 87109



Lab Order 1412110

Date Reported: 12/5/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EPCOR Water

Client Sample ID: Effluent

Project: Edgewood WWTP

Collection Date: 12/2/2014 9:40:00 AM

Lab ID: 1412110-001

Matrix: AQUEOUS Received Date: 12/2/2014 12:30:00 PM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS		 -			Analys	t: JRR
Nitrogen, Nitrite (As N)	ND	2.0	mg/L	20	12/2/2014 7:14:25 PM	R22899
Nitrogen, Nitrate (As N)	0.57	0.10	mg/L	1	12/2/2014 7:02:00 PM	R22899
SM 9223B FECAL INDICATOR: E. C	OLI MPN				Anaiys	t: MRA
E. Coli	920.8	1.000	CFU/100ml	1	12/3/2014 4:46:00 PM	16642

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit Dec
- P Sample pH greater than 2.
- Page 1 of 1
- RL Reporting Detection Limit



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87105

TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

Sample Log-In Check List

RcptNo: 1 Work Order Number: 1412110 EPCOR-EDGEWOOD Client Name: Received by/date: 12/2/2014 12:30:00 PM Logged By: Ashley Gallegos 12/2/2014 3:57:53 PM Completed By: **Ashiey Gallegos** Reviewed By: Chain of Custody Not Present No 🔲 Yes 🗍 1. Custody seals intact on sample bottles? No 🗆 Not Present Yes 🔽 2. Is Chain of Custody complete? Client 3. How was the sample delivered? Log In No 🗆 NA 🗆 Yes 🔽 4. Was an attempt made to cool the samples? NA 🗆 No 🗍 5. Were all samples received at a temperature of >0° C to 6.0°C No 🗌 Yes V 6. Sample(s) in proper container(s)? Yes 🗹 No 🗆 7. Sufficient sample volume for indicated test(s)? No 🗆 8. Are samples (except VOA and ONG) properly preserved? NA 🗆 No 🗹 Yes 🗌 9. Was preservative added to bottles? No VOA Vials 🗹 No 🔲 Yes 🗌 10.VQA vials have zero headspace? Yes 🗆 No 🗹 11. Were any sample containers received broken? # of preserved bottles checked No 🗆 for pH: Yes 🗹 12.Does paperwork match bottle labels? (<2 or >12 unless noted) (Note discrepancies on chain of custody) Adjusted? No 🗆 Yes 🔽 13. Are matrices correctly identified on Chain of Custody? No 🗆 Yes 🗹 14 is it clear what analyses were requested? No 🗆 Checked by: Yes 🔽 15. Were all holding times able to be met? (If no, notify customer for authorization.) Special Handling (if applicable) NA 🗹 No 🗆 Yes 🔲 16. Was client notified of all discrepancies with this order? Date: Person Notified: eMail Phone Fax In Person By Whom: Regarding: Client Instructions: 17. Additional remarks: 18. Cooler Information Cooler No Temp °C Condition Seal Intact Seal No Seal Date Not Present Good

	ANALYSIS LABORATORY	www.hallenvironmental.com	4901 Hawkins NE - Albuquerque, NM 87109	Tel. 505-345-3975 Fax 505-345-4107	Analysis Request	O4)	O seso)	2008 (1) (1) (1)	T + 180	(GI) (GI) (GI) (GI) (GI) (GI)	BTEX + MT BTEX + MT TPH 8015B TPH 8015B TPH (Methors (F,C) ROB1 Pestic RCRA 8 Methors (F,C) ROB1 Pestic RCRA 8 Methors (F,C) ROB1 Pestic	XX					Remarks:		
Turn-Around Time:	X Standard □ Rush	Project Name:	Edgenood WITTP	Project#:		Project Manager:	Mike Buther	. M.	On Ice: X Yes 🗆 Ņo	Sample Temperature: 5,4	Container Preservative HEAL No. Type and # Type // 1/2 // D	00- /2025 N G-E					Received by: Date Time	Received by:	Ontracted to other accredited laboratories. This serves as notice
Chain-of-Custody Record	Client Excor Water	•	Mailing Address. POPSX 350	£0190000 NM Brais	Phone # 505-278-6277	* Moutle - 6) cover.	QA/QC Package: Call Validation		□ NELAP □ Other	☐ EDD (Type)	Date Time Matrix Sample Request ID	x249.40 As EFTILENT					Date: Time: Relinguished of	Date: Time: Relinquished by:	If necessary, samples submitted to Hall Environmental may be subc



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

December 11, 2014

Mike Butler EPCOR Water PO Box 370 Edgewood, NM 87015

TEL: (505) 228-6233

FAX

RE: Edgewood WWTP

OrderNo.: 1411A40

Dear Mike Butler:

Hall Environmental Analysis Laboratory received 2 sample(s) on 11/24/2014 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman

Laboratory Manager

Belge

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 1411A40

Date Reported: 12/11/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EPCOR Water

Project: Edgewood WWTP

Lab ID: 1411A40-001 Client Sample ID: Effluent

Collection Date: 11/24/2014 2:15:00 PM

Received Date: 11/24/2014 3:35:00 PM

Analyses	Result	RL ·	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS		· ·				Analys	t: JRR
Chloride	350	25	*	mg/L	50	12/2/2014 10:32:58 PN	
SM5210B: BOD						Analys	t: SMS
Biochemical Oxygen Demand	2.9	2.0		mg/L	1	11/30/2014 2:14:00 PM	
SM2540C MOD: TOTAL DISSOLVE	ED SOLIDS					Analys	t: KS
Total Dissolved Solids	1300	40.0	*	mg/L	1	11/26/2014 12:03:00 P	-
SM 4500 NORG C: TKN						Analys	t: SRM
Nitrogen, Kjeldahl, Total	1.1	1.0		mg/L	1	12/8/2014 12:13:00 PM	

Matrix: AQUEOUS

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- j Analyte detected below quantitation limits
- 0 RSD is greater than RSDlimit
- RPD outside accepted recovery limits R
- Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded Н
- Not Detected at the Reporting Limit ND
 - P Sample pH greater than 2.

Page 1 of 6

- RL
- Reporting Detection Limit

Analytical Report

Lab Order 1411A40

Date Reported: 12/11/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EPCOR Water

Client Sample ID: Influent

Edgewood WWTP Project:

Collection Date: 11/24/2014 2:15:00 PM

Lab ID: 1411A40-002 Matrix: AQUEOUS

Received Date: 11/24/2014 3:35:00 PM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
SM5210B: BOD					Anal	yst: SMS
Biochemical Oxygen Demand	490	2.0	mg/L	1	11/30/2014 2:14:00	PM 16567
SM 4500 NORG C: TKN					Anal	yst: SRM
Nitrogen, Kjeldahl, Total	66	5.0	mg/L	1	12/8/2014 12:13:00	PM 16666

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range E
- Analyte detected below quantitation limits
- RSD is greater than RSDlimit \mathbf{o}
- RPD outside accepted recovery limits R
- Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded H
- Not Detected at the Reporting Limit ND
 - Page 2 of 6
- Sample pH greater than 2.
- Reporting Detection Limit RL



YOUR LAB OF CHOICE

12065 Lebanon Rd. Mt. Juliet, TN 37122-(615) 758-5858 1-800-767-5859 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

November 30, 2014

Hall Environmental Analysis Laborat

4901 Hawkins NE Albuquerque, NM 87109

ESC Sample # : L736029-01

Date Received Description

November 26, 2014

Site ID :

Sample ID

1411A40-001C EFFLUENT

Project # :

Collected By : Collection Date :

11/24/14 14:15

<u>Parameter</u> Det. Limit Units Method Dil. Result Date COD 10. 410.4 11/29/14 21. mg/1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 11/30/14 12:01 Printed: 11/30/14 12:02



YOUR LAS OF CHOICE

12065 Lebanon Rd. Mt:-Juliet, TN 37122 (615) 758-5858 1-800-767-5859 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

November 30, 2014

Hall Environmental Analysis Laborat 4901 Hawkins NE Albuquerque, NM 87109

L736029-02 ESC Sample # :

November 26, 2014 Date Received

Description

Site ID :

Sample ID

1411A40-002C INFLUENT

Project # :

Collected By : Collection Date :

11/24/14 14:15

Date Dil. Method Det. Limit Units Resul<u>t</u> Parameter 11/29/14 1 410.4 10. mg/1910 COD

BDL - Below Detection Limit Det. Limit - Practical Quantitation Limit(PQL)

The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 11/30/14 12:01 Printed: 11/30/14 12:02



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Tax I.D. 62-0814289

Est. 1970

YOUR LAB OF CHOICE

Hall Environmental Analysis Laboratory

4901 Hawkins NE

Albuquerque, NM 87109

Quality Assurance Report Level II

L736029

November 30, 2014

			aboratory E						
Analyte	Result		Units	% Rec	<u> </u>	Limit		Batch D	<u>ate_Analy</u> zed
COD	< 10		mg/l					WG757285 1	1/2 <u>9/14</u> 11:17
_			Duplicat						
Analyte	Units	Resul	t Dupli	cate	RPD	Limit		Ref Samp	Batch
COD	mg/1 mg/1	910. 16.0	900. 16.0		1.10	5 5		L734069-0	
		10.0	10.0		0.0			L/36022-0	3 NG/3/285
		Labor	atory Contr	ol Samp	le				
Analyte	Units	Knov	m Val	Res	ult	1 Rec		Limit	Batch
COD	mg/l	183		199.		109.		90-110	WG757285
	:	Laboratory	Control 8a	mole Du	plicate				
Analyte		Result	Ref	Rec		Limit	RPD	Limi	t Batch
COD	mg/1	198.	199.	108.		90-110	0.504	5	WG757285
			Matrix Spi	Y A					
Analyte	Units	MS Res	Ref Res	TV	1 Rec	Limit		Ref Samp	Batch
COD	mg/1	416.	7.30	400	100.	90-110		L73594B-12	WG757285
		Matr	ix Spike Du	nliasta					
Analyte	Units		Ref &R		Limit	RPD	Limit	Ref Samp	Batch
COD	mg/1	417.	416. 10	2.	90-110	0.240	5	L735948-12	WG757285

Batch number /Run number / Sample number cross reference

WG757285: R3007193: L736029-01

^{* *} Calculations are performed prior to rounding of reported values.

^{*} Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411A40

11-Dec-14

Client: EPCOR Water
Project: Edgewood WWTP

Sample ID MB SampType: MBLK

Client ID: PBW Batch ID: R22899 RunNo: 22899

Analysis Date: 12/2/2014 SeqNo: 676194 Units: mg/L

Prep Date: Analysis Date: 12/2/2014 SeqNo: 676194 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 0.50

Sample ID LCS
Client ID: LCSW

SampType: LCS

TestCode: EPA Method 300.0: Anions

TestCode: EPA Method 300.0: Anions

Batch ID: **R22899** RunNo: **22899**

Prep Date: Analysis Date: 12/2/2014 SeqNo: 676195 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride 4.7 0.50 5.000 0 94.1 90 110

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

Page 3 of 6

Hall Environmental Analysis Laboratory, Inc.

WO#:

1411A40

11-Dec-14

Client:

EPCOR Water

Project:

Edgewood WWTP

Sample ID MB-16567

SampType: MBLK

TestCode: SM5210B: BOD

Client ID: PBW

Batch ID: 16567

RunNo: 22900

Prep Date: 11/25/2014

Analysis Date: 11/30/2014

Result

SeqNo: 676266

Units: mg/L

Qual

Analyte Biochemical Oxygen Demand

PQL SPK value SPK Ref Val %REC LowLimit

HighLimit

RPDLimit

Sample ID MB--16567 Client ID: PBW

SampType: MBLK Batch ID: 16567

RunNo: 22900

TestCode: SM5210B: BOD

Prep Date: 11/25/2014 Analysis Date: 11/30/2014

Units: mg/L

Biochemical Oxygen Demand

Result **PQL** ND 2.0 SPK value SPK Ref Val %REC LowLimit

SPK value SPK Ref Val

SPK value SPK Ref Val.

198.0

198.0

SeqNo: 676267

HighLimit

%RPD

%RPD

RPDLimit Qual

Sample ID LCS-16567

Client ID: LCSW

Result

240

240

SampType: LCS Batch ID: 16567 TestCode: SM5210B: BOD RunNo: 22900

89.6

LowLimit

Analyte

Analyte

Prep Date: 11/25/2014

Analysis Date: 11/30/2014

PQL

2.0

SeqNo: 676268 %REC

Units: mg/L **HighLimit**

RPDLimit

Qual

Qual

Sample ID LCSD-16567

Biochemical Oxygen Demand

Client ID: LCSS02

SampType: LCSD Batch ID: 16567

PQL

2.0

TestCode: SM5210B: BOD

%REC

120

120

RunNo: 22900

0

Λ

HighLimit

Units: mg/L

126

0.210

%RPD

Analyte Biochemical Oxygen Demand

Prep Date: 11/25/2014

Analysis Date: 11/30/2014

SeqNo: 676269

89.6

LowLimit

%RPD **RPDLimit**

31.9

Qualifiers:

S

Value exceeds Maximum Contaminant Level.

E Value above quantitation range

Analyte detected below quantitation limits

0 RSD is greater than RSDlimit

R

RPD outside accepted recovery limits

Spike Recovery outside accepted recovery limits

R Analyte detected in the associated Method Blank

Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

Sample pH greater than 2.

Reporting Detection Limit

Page 4 of 6

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411A40

11-Dec-14

Client: Project:

EPCOR Water Edgewood WWTP

Sample ID MB-16563

SampType: MBLK

TestCode: SM2540C MOD: Total Dissolved Solids

Client ID: **PBW** Batch ID: 16563

RunNo: 22815

Prep Date: 11/25/2014

Analysis Date: 11/26/2014

SeqNo: 673493

Units: mg/L

Analyte

PQL SPK value SPK Ref Val Result

%REC LowLimit

HighLimit

%RPD **RPDLimit**

Qual

Total Dissolved Solids

ND 20.0

Sample ID LCS-16563

SampType: LCS

TestCode: SM2540C MOD: Total Dissolved Solids

Client ID: LCSW

Batch ID: 16563

RunNo: 22815

Prep Date: 11/25/2014

Analysis Date: 11/26/2014

SeqNo: 673494

Units: mg/L

Analyte

Result **PQL**

SPK value SPK Ref Val

%REC LowLimit 80

%RPD HighLimit

RPDLimit

20.0

102

Total Dissolved Solids

1020

1000

0

120

Qual

Qualifiers:

Value exceeds Maximum Contaminant Level.

Value above quantitation range Ε

Analyte detected below quantitation limits J

RSD is greater than RSDlimit 0

RPD outside accepted recovery limits R

Spike Recovery outside accepted recovery limits S

Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded Н

Not Detected at the Reporting Limit

Sample pH greater than 2.

Reporting Detection Limit RL

Page 5 of 6

Hall Environmental Analysis Laboratory, Inc.

WO#:

1411A40

11-Dec-14

Client:

EPCOR Water

Project:

Analyte

Analyte

Edgewood WWTP

Sample ID MB-16666

SampType: MBLK

TestCode: SM 4500 Norg C: TKN

Client ID: PBW

Batch ID: 16666

RunNo: 23032

Prep Date: 12/4/2014

Analysis Date: 12/8/2014

SeqNo: 680388

%REC LowLimit

Units: mg/L

%RPD

%RPD

RPDLimit

Qual

Nitrogen, Kjeldahl, Total

Client ID: LCSW

Result

PQL 1.0

Sample ID LCS-16666

SampType: LCS Batch ID: 16666 TestCode: SM 4500 Norg C: TKN RunNo: 23032

Prep Date: 12/4/2014

Units: mg/L

HighLimit

Analysis Date: 12/8/2014

SeqNo: 680389

RPDLimit

Qual

Result PQL SPK value SPK Ref Val

10.00

101

%REC LowLimit

Nitrogen, Kjeldahl, Total

10

SPK value SPK Ref Val

HighLimit 120

Qualifiers:

Value exceeds Maximum Contaminant Level.

Ε Value above quantitation range

Analyte detected below quantitation limits

O RSD is greater than RSDlimit

RPD outside accepted recovery limits R

S Spike Recovery outside accepted recovery limits В Analyte detected in the associated Method Blank

Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

P Sample pH greater than 2.

Reporting Detection Limit

Page 6 of 6



Hall Environmental Analysis Laborator) 4901 Hawkins NE Albuquerque, NM 87105

TEL: 505-345-3975 FAX: 505-345-4107

Website: www.hallenvironmental.com

Sample Log-In Check List

RcotNo: 1 Work Order Number: 1411A40 Client Name: **EPCOR-ENGEWOOD** Received by/date 11/24/2014 3:35:00 PM Ashley Gallegos Logged By: 11/24/2014 3:50:37 PM Completed By: **Ashley Gallegos** Reviewed By: Chain of Custody Not Present No 🔲 Yes 🗌 1 Custody seals intact on sample bottles? No 🗆 Not Present Yes 🗹 2. Is Chain of Custody complete? 3. How was the sample delivered? Client Log <u>In</u> NA 🗔 No 🗆 Yes 🗸 4. Was an attempt made to cool the samples? NA 🗌 5. Were all samples received at a temperature of >0° C to 6.0°C Yes 🗌 Samples were collected the same day and chilled. No 🗀 Yes 🗹 Sample(s) in proper container(s)? No 🛚 Yes 7. Sufficient sample volume for indicated test(s)? No 🛚 8. Are samples (except VOA and ONG) properly preserved? Vas NA 🗌 No 🗹 Yes 9. Was preservative added to bottles? No VOA Vials 🗹 No 🗌 Yes 10. VOA vials have zero headspace? No 🗹 Yes 11. Were any sample containers received broken? # of preserved bottles checked No 🗆 for pH: Yes 12. Does paperwork match bottle labels? 12 unless noted) (Note discrepancies on chain of custody) Adjusted? No 🗆 13. Are matrices correctly identified on Chain of Custody? No 🗆 V 14, is it clear what analyses were requested? Checked by: No 🗆 Yes 🗹 15. Were all holding times able to be met? (If no, notify customer for authorization.) Special Handling (If applicable) No 🗆 NA 🗹 Yes 🗌 16. Was client notified of all discrepancies with this order? Date: Person Notified: eMail Phone Fax In Person Via: By Whom: Regarding: Client Instructions: 17. Additional remarks: 18. Cooler Information Cooler No Temp ºC Condition Seal Intact Seal No Seal Date 7.9 Not Present Good

ひ	hain	-of-C	ustc	Chain-of-Custody Record	Turn-Around Time	Time:					3		Ü	2	TNEWNOOTO	Ž	T	2			
Client:	120	Client: Erest Dates	19/2	Ç	X Standard	□ Rush				רו ר	F	įZ	i Ş.	S	ANALYSIS LABORATORY	80	1 2	Ė	K	. >	
					Project Nam	i.					₹	w.ha	llenvii	OUTE	www.hallenvironmental.com	Ę					
Mailing Address: PO	Address	20 /	B	0x 370	toper	ω	WTD		490	4901 Hawkins NE	vkins	빌	Abr	dner	Albuquerque, NM 87109	IM 87	109				
Edgeward	2)02	_ 1	MM	R7015	Project #:				Te	Tel. 505-345-3975	-345-	3975	ű.	Fax 50	505-345-4107	410	7				
Phone #.	505	7	262	233								1	Analysis		Rednest						
email or Fax#: Mbv	Fax#: 1	mbut.	Herre	DOCOT. COM	Project Manager:	ger:		(1		(O)					s						
QA/QC Package: □ Standard	ackage: lard		<u>-</u>	☐ Level 4 (Full Validation)	Mike	Buth	. L	<u> </u>		M / O5		(SMIS			.gეკ 2						
Accreditation □ NELAP	ation P	□ Other	ě		Sampler: // On log:	1. But.	No.	BMT +							200 /	(A				(N 20	
□ EDD (Type)	(Type)				Sample Temperature:	perature:	4.9	- 38 										· · ·		· //:	
Date	Time	Matrix		Sample Request ID	Container Type and #	Preservative Type	HEAL NO	TM + X3T8	TM + X3T8	82108 H9T	TPH (Metho	168) e'HA9	RCRA 8 Me	D,∃) anoinA	8081 Pestic	ime2) 07 <u>2</u> 8	008	100	NYL	Air Bubbles	0019999
MHC-	SIM	A9.	15.7	Fluent			100-										X	X	<u> </u>	¥	
M-HE	51/01	7	10	Fluent			-000	. \									X	×		100	1
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Date:	Time:	Relinguishe	W		Received by:		Date Time //2 11/10 2:3	- Re	Remarks	1,2											Ī
Date: /2 / / / / /	Time:	Relinquished by	shed by:		Received by	7	20	83	,												14
ı II	necessary.	, samples sut	t pertiment	If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories	ubcontracted to other a	coledined laborator	ies. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report	f this poss	ibility. /	dus yu	contrac	ted data	¥iii be	dearly I	otated (on the	ınalytic	al repo	7		•



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

OrderNo.: 1412462

December 19, 2014

Mike Butler EPCOR Water PO Box 370 Edgewood, NM 87015

TEL: (505) 228-6233

FAX

RE: Edgewood WWTP

Dear Mike Butler:

Hall Environmental Analysis Laboratory received 2 sample(s) on 12/9/2014 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

Website: www.hallenvironmental.com

Case Narrative

WO#:

1412462

Date:

12/19/2014

CLIENT:

EPCOR Water

Project:

Edgewood WWTP

Analytical Comments Regarding BOD: The method blank(s) had a DO depletion >0.2mg/L.

Analytical Report

Lab Order 1412462

Date Reported: 12/19/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EPCOR Water

Client Sample ID: Effluent

Project:

Edgewood WWTP

Collection Date: 12/9/2014 2:30:00 PM

Lab ID:

1412462-001

Matrix: AQUEOUS

Received Date: 12/9/2014 3:55:00 PM

Analyses	Result	RL Qua	ıl Units	DF	Date Analyzed	Batch
SM 9223B FECAL INDICATOR:	E. COLL MPN				Analy	yst: MRA
E. Coli	<1	1.000	CFU/100ml	1	12/10/2014 4:43:00	PM 16751

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 2 of 5

- P Sample pH greater than 2.
- RL Reporting Detection Limit

Analytical Report

Lab Order 1412462

Date Reported: 12/19/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EPCOR Water

Edgewood WWTP

Lab ID: 1412462-002

Project:

Client Sample ID: Influent

Collection Date: 12/9/2014 2:30:00 PM Received Date: 12/9/2014 3:55:00 PM

Analyses	Result	RL Qua	l Units	DF Date Analyzed	Batch
SM5210B: BOD			-	Anal	yst: SMS
Biochemical Oxygen Demand	470	2.0	mg/L	1 12/15/2014 11:38:00	AM 16752

Matrix: AQUEOUS

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 3 of 5

- P Sample pH greater than 2.
- RL Reporting Detection Limit



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Est. 1970

REPORT OF ANALYSIS

December 16, 2014

Hall Environmental Analysis Laborat 4901 Hawkins NE Albuquerque, NM 87109

ESC Sample # : L738387-01

Date Received : Description

December 11, 2014

Site ID :

Sample ID

1412462-002B INFLUENT

Project # :

Collected By : Collection Date :

12/09/14 14:30

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
	900	10.	mg/l	410.4	12/16/14	1
COD	200	=	-			

BDL - Below Detection Limit Det. Limit - Practical Quantitation Limit(PQL)

The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 12/16/14 17:16 Printed: 12/16/14 17:17



YOUR LAB OF CHOICE

Hall Environmental Analysis Laboratory

4901 Hawkins NE

Albuquerque, NM 87109

Quality Assurance Report Level II

L738387

12065 Lebanon Rd. Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5859 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

December 16, 2014

Analyte	Result		boratory B Dnits	lank % Rec		Limit		Batch Dat	e_Analyzed
COD	< 10		ıg/1					WG760020 12/	<u>16/14</u> 12:43
			Duplicate	•					
Analyte	Units	Result	Duplie	cate	RPD	Limit		Ref Samp	Bat.ch
COD	mg/1	0.0	0.0		0.0	5		L738400-02	WG760020
COD	mg/l	110.	110.		0.0	5		L738155-01	WG760020
		Labora	tory Contro	ol Samp	le				
Analyte	Units	Known			ult	♣ Rec		Limit	Batch
COD	mg/l	183	<u>-</u>	183.		100		90-110	WG760020
	: 1	aboratory	Control Sar	mple Du	plicate				
Analyte	Units	Result	Ref	Rec	<u> </u>	Limi <u>t</u>	RPD	Limit	Batch
COD		182.	183.	99.0		90-110	0.548	. 5	MG760020
			Matrix Spil	(e					
Analyte	Units	MS Res	Ref Res	TV	% Rec	Limit		Ref Samp	Batch
COD	mg/l	334.	0.0	400	84.0*	90-110		L738354-05	WG760020

Batch number /Run number / Sample number cross reference

WG760020: R3010256: L738387-01

^{* *} Calculations are performed prior to rounding of reported values.
* Performance of this Analyte is outside of established criteria.

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

Hall Environmental Analysis Laboratory, Inc.

WO#: 1412462

19-Dec-14

Client:

EPCOR Water

Project:

Edgewood WWTP

Sample ID MB-16752

SampType: MBLK

TestCode: SM5210B: BOD

Client ID: PBW

Batch ID: 16752

RunNo: 23175

Prep Date: 12/10/2014

Analysis Date: 12/15/2014 PQL

2.0

SeaNo: 684472

Qual

Analyte

Result ND SPK value SPK Ref Val %REC

SPK value SPK Ref Val %REC LowLimit

LowLimit

%RPD

RPDLimit

Biochemical Oxygen Demand Sample ID MB-16752

SampType: MBLK

TestCode: SM5210B: BOD

Client ID: **PBW** Batch ID: 16752

RunNo: 23175

Units: mg/L

HighLimit

Prep Date: 12/10/2014

Analysis Date: 12/15/2014

SeqNo: 684473

Units: mg/L HighLimit

RPDLimit Qual %RPD

Analyte Biochemical Oxygen Demand

PQL Result ND 2.0

Sample ID LCS-16752

Client ID: LCSW

SampType: LCS Batch ID: 16752 TestCode: SM5210B: BOD

RunNo: 23175

Prep Date: 12/10/2014

Analysis Date: 12/15/2014

SeaNo: 684474

Units: mg/L HighLimit

Analyte

SPK value SPK Ref Val PQL Result

240

%REC

124

126

%RPD **RPDLimit** Qual

Qual

Biochemical Oxygen Demand Sample ID LCSD-16752

SampType: LCSD Batch ID: 16752 TestCode: SM5210B: BOD RunNo: 23175

LowLimit

89.6

Client ID: Prep Date: 12/10/2014

LCSS02

2.0

SeqNo: 684475

Analyte

Analysis Date: 12/15/2014 POL

%REC

Units: mg/L

RPDLimit

Biochemical Oxygen Demand

Result 240 2.0

198.0

SPK value SPK Ref Val

198.0

120

89.6

LowLimit

HighLimit 126 %RPD 2.69

31.9

Qualifiers:

Value exceeds Maximum Contaminant Level.

Spike Recovery outside accepted recovery limits

Value above quantitation range Ε Analyte detected below quantitation limits J

RSD is greater than RSDlimit 0

RPD outside accepted recovery limits

Analyte detected in the associated Method Blank В

Н Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit ND

Sample pH greater than 2.

Reporting Detection Limit

Page 4 of 5

Hall Environmental Analysis Laboratory, Inc.

WO#:

1412462

19-Dec-14

Client:

EPCOR Water

Project:

Edgewood WWTP

Sample ID MB-16751 Client ID: PBW

SampType: MBLK

TestCode: SM 9223B Fecal Indicator: E. coli MPN

Batch ID: 16751

RunNo: 23095

Prep Date: 12/9/2014 Analysis Date: 12/10/2014

Units: CFU/100ml

Analyte

SeqNo: 682374

SPK value SPK Ref Val %REC LowLimit

HighLimit

%RPD **RPDLimit** Qual

E. Coli

1.000

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- Analyte detected below quantitation limits
- 0 RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Sample pH greater than 2.
- Reporting Detection Limit

Page 5 of 5



Hall Environmental Analysis Laborators 4901 Hawkins NE Albuquerque, NM 87105

TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name:	EPCOR-EDGEWOOD	Work Order Number:	1412462		RcptNo: 1	
Received by/date	:(\S	12/09/14				
Logged By:	Celina Sessa	12/9/2014 3:55:00 PM		Celian So		
Completed By:	Celina Seasa	12/9/2014 4:03:29 PM		aline So	·	
Reviewed By:	10/	12/09/1	4 (a	Mole	>	
Chain of Cust	tody) ' ' ' '	_			
1. Custody sea	ls intact on sample bottles?		Yes 🗌	No ∐	Not Present 🗹	
2. Is Chain of C	ustody complete?		Yes 🗹	No ∐	Not Present	
3. How was the	sample delivered?		Client			
<u>Log In</u>					_	
	mpt made to cool the samp	les?	Yes 🗹	No 🗆	NA 🗆	
			v 🗀	140 ☑	na 🗆	
5. Were all san	nples received at a tempera	iture of >0" C to 6.0"C Samples we	Yes └┴ re collected <u>t</u>	he same day and		
6. Sample(s) ii	n proper container(s)?	<u> </u>	Yes 🔽	No 🗆		
7 Cufficient co	mple volume for indicated t	est(s)?	Yes 🗹	No 🗆		
	(except VOA and ONG) pi		Yes 🗹	No 🗆		
	vative added to bottles?	· •	Yes 🗆	No 🗹	na 🗆	
40	ave age bandonces		Yes 🗆	No 🗔	No VOA Vials 🗹	
	ave zero headspace?	hroken?	Yes 🗆	No 🗹		·
17. vvere any s	ample containers received	DIGIGIT			# of preserved bottles checked	/
12.Does paper	work match bottle labels?		Yes 🗹	No 🗆	for pH:	r >12 unless noted
(Note discre	epancles on chain of custod		Yes 🗹	No 🗆	Adjusted?	No
	s correctly identified on Cha		Yes ☑ Yes ☑	No 🗆	_	
	hat analyses were requeste		Yes 🗹	No 🗆	Checked by:	91)
15.Were all ho (If no, notify	lding times able to be met? customer for authorization	.)	100 12		t	<u></u>
0	dling (if confloctio)					
		with this order?	Yes 🗌	No 🗆	NA 🗹	
		Date:				
16. Was client notified of all discrepancies with this order?		1				
'	rding:					
1	t Instructions:					<u>!</u>
17. Additional	<u> </u>		· · · · · · · · ·			
10 Caalar Int	formation					
18. <u>Cooler in</u> Cooler	No Temp C Condition		Seal Date	Signed By	4	
1	10.6 Good	Not Present			I	

HALL ENVIDONMENTAL	ANALYSIS LABORATORY	www.hallenvironmental.com	4901 Hawkins NE - Albuquerque, NM 87109	Tel. 505-345-3975 Fax 505-345-4107	Analysis Request	(*0:	S'†O) ((((((1.8 (1.40) (1.40) (7.80) (A)	(1) (NC) (1)	orthoo 310 310 Sticilia Sticil	6M) Homes (Message) Homes (Message) 8 ARC (Message) 6 Message) 6 M	9T P P P P P P P P P P P P P P P P P P P		<u> </u>										
			4901	Tel.		(Kjud	o 8 8 6	э) н	qT -	+ ∃8	TM	H 801	та						_		Remarks:				1 41 41
Turn-Around Time:	XStandard □ Rush	Project Name:	tolgeneral Witty	Project #:		Project Manager:	Mito Kith	M R LIST	Sample: // C C // C On los	Temperature: 10.6°(1)		Container Preservative HEAL No. X Type and # Type	1412462	-001	700-						Received by:	12/9/14	Received by: Date Time	Jelin Som (2/09/14 1555)	adjactory and beginning
Chain-of-Custody Record	Client: IDION Water		Mailing Address: PO BOX 320	Edec 2000 NW 87015	-228	email or Fax#: Mbutle-10/2200-101	ige:	☐ Standard ☐ Level 4 (Full Validation)	NELAP Cher	(age)		Date Time Matrix Sample Request ID		394 MBO An Etfluent	1341 July 1 1241 4251						Date: Time: Relinguished by	1 1453	Date: Time: Relinquished by:	12/9/14 355	the and commented from the Line Construction of the contract o



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

Website: www.hallenvironmental.com

January 05, 2015

Mike Butler EPCOR Water PO Box 370

Edgewood, NM 87015 TEL: (505) 228-6233

FAX

RE: Edgewood WWTP OrderNo.: 1412877

Dear Mike Butler:

Hall Environmental Analysis Laboratory received 1 sample(s) on 12/17/2014 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EPCOR Water Client Sample ID: Effluent

 Project:
 Edgewood WWTP
 Collection Date: 12/17/2014 2:00:00 PM

 Lab ID:
 1412877-001
 Matrix: AQUEOUS
 Received Date: 12/17/2014 3:40:00 PM

Analyses Result **RL Qual Units DF** Date Analyzed Batch SM5210B: BOD Analyst: SMS **Biochemical Oxygen Demand** 8.2 2.0 mg/L 12/22/2014 2:57:00 PM 16879 SM 9223B FECAL INDICATOR: E. COLI MPN Analyst: MRA E. Coli <1 1.000 CFU/100ml 12/18/2014 4:49:00 PM 16893

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 1 of 3

- P Sample pH greater than 2.
- RL Reporting Detection Limit



1

YOUR LASS OF CHOICE

12065 Lebanon Rd. Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5859 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

December 23, 2014

Hall Environmental Analysis Laborat

4901 Hawkins NE Albuquerque, NM 87109

ESC Sample # : L740122-01

Date Received :

December 19, 2014

Description

1412877-001C EFFLUENT

Site ID :

Sample ID

Project # :

Collected By

Collection Date :

12/17/14 14:00

Parameter	Result	Det. Limit	Units	Method	DateDil
COD	30.	10.	mg/l	410.4	12/22/14 1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 12/23/14 08:56 Printed: 12/23/14 08:56



YOUR LAB OF CHOICE

Hall Environmental Analysis Laboratory

4901 Hawkins NE

Albuquerque, NM 87109

Quality Assurance Report Level II

L740122

12065 Lebanon Rd. Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5859 Fax (615) 758-5859

Tax I.D. €2-0814289

Est. 1970

December 23, 2014

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Book to the second of the seco	Danul 1		Laborator		_	W 2 2 L		Danah Data	. Boolinad
Analyte	Result		Units	% Re	c	Limit		Batch Date	Analyzed
COD	< 10		mg/l					WG761221_12/2	2/14 13:37
			Dupli	cate					
Analyte	Units	Resu	lt Du	plicate	RPD	Limit		Ref Samp	Batch
COD	mg/l	0.0	0.		0.0	5		L739911-01	WG761221
COD	mg/1	0.0	0.	.0	0.0	5		L740170-01	WG761221
		Labor	ratory Co	ontrol Sam	ple				
Analyte	Units	Knor	vn Val	Re	sult	% Rec		Limit	Batch
СОВ	mg/l	183		186.	,	102.		90-110	WG761221
		Laboratory	v Control	Sample D	uplicate				
Analyte	Units	Result	Ref	*Rec		Limit	RPD	Limit	Batch
COD	mg/l	186.	186.	102.		90-110	0.0	5	WG761221
			Matrix	Spike					
Analyte	Units	MS Res	Ref R		8 Rec	Limit		Ref Samp	Batch
COD	mg/1	393.	0.0	400_	98.0	90-110)	L739949-11	WG761221
		Mati	rix Spike	Duplicate	e				
Analyte	Units	MSD	Ref	Rec	Limit	RPD	Limit	Ref Samp	Batch
COD	mg/l	403.	393.	101.	90-110	2.51	5	L739949-11	WG761221

Batch number /Run number / Sample number cross reference

WG761221: R3011456: L740122-

^{* *} Calculations are performed prior to rounding of reported values.
* Performance of this Analyte is outside of established criteria.

^{*} Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

Hall Environmental Analysis Laboratory, Inc.

WO#: 1412877 05-Jan-15

Client:

EPCOR Water

Project:

Analyte

Edgewood WWTP

Sample ID MB-16879

SampType: MBLK

TestCode: SM5210B: BOD

Client ID:

PBW

Batch ID: 16879

PQL

RunNo: 23366

Prep Date: 12/17/2014 Analysis Date: 12/22/2014

ND

Result

SeqNo: 690440

SPK value SPK Ref Val

SPK value SPK Ref Val %REC

Units: mg/L **HighLimit**

%RPD **RPDLimit**

Qual

Biochemical Oxygen Demand

Sample ID MB-16879

SampType: MBLK

Batch ID: 16879

TestCode: SM5210B: BOD RunNo: 23366

LowLimit

Prep Date: 12/17/2014

PBW

Analysis Date: 12/22/2014

SeqNo: 690441

%REC LowLimit

Units: mg/L HighLimit

RPDLimit %RPD Qual

Analyte Biochemical Oxygen Demand

Client ID:

Result **PQL** ND 2.0

Sample ID LCS-16879

Client ID: LCSW

SampType: LCS Batch ID: 16879 TestCode: SM5210B: BOD

RunNo: 23366

Prep Date: 12/17/2014

Analysis Date: 12/22/2014

SeqNo: 690442

Units: mg/L

Analyte

RPDLimit Qual

Qual

HighLimit %RPD %REC LowLimit SPK value SPK Ref Val Result **PQL** 89.6 126 198.0 116 230 2.0 Biochemical Oxygen Demand

Sample ID LCSD-16879

SampType: LCSD Batch ID: 16879 TestCode: SM5210B: BOD

Client ID: LCSS02 Prep Date: 12/17/2014

Analysis Date: 12/22/2014

RunNo: 23366

Units: mg/L

%REC SPK value SPK Ref Val PQL Result

SeqNo: 690443

%RPD **RPDLimit HighLimit** LowLimit Analyte 31.9 89.6 126 7.19 2.0 198.0 210 Biochemical Oxygen Demand

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- Analyte detected below quantitation limits J
- 0 RSD is greater than RSDlimit
- RPD outside accepted recovery limits R
- Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank В
- Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit ND
- Sample pH greater than 2. Reporting Detection Limit

Page 2 of 3

Hall Environmental Analysis Laboratory, Inc.

WO#:

1412877

05-Jan-15

Client:

EPCOR Water

Project:

Edgewood WWTP

Sample ID MB-16893

SampType: MBLK

TestCode: SM 9223B Fecal Indicator: E. coli MPN

Client ID: PBW

Batch ID: 16893

RunNo: 23250

Prep Date: 12/17/2014 Analysis Date: 12/18/2014

SeqNo: 687135

Units: CFU/100ml

Analyte

PQL SPK value SPK Ref Val %REC LowLimit

HighLimit

%RPD

RPDLimit

Qual

E. Coli

1.000

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Ε Value above quantitation range
- Analyte detected below quantitation limits
- o RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- Reporting Detection Limit

Page 3 of 3



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

Website: www.hallenvironmental.com

Sample Log-In Check List

		 					
Client Name:	EPCOR-EDGEWOOD	Work Order Number:	141287	7		RcptNo:	Į.
Received by/date		12/17/14			A>		
Logged By:	Ashley Galleges	12/17/2014 3:40:00 PM			5		
Completed By:	Ashiey Gallegos	12/17/2014 3:49:05 PM			-A-7		
Reviewed By:	Rus 121	17/14	•				
Chain of Cus	tody				_		
1. Custody sea	ils intact on sample bottles?		Yes		No 🗀	Not Present	
2. Is Chain of C	Custody complete?		Yes		No 🗀	Not Present	
3. How was the	sample delivered?		Client				
<u>Log In</u>						[7	
4. Was an atte	empt made to cool the sample	es?	Yes		No 🗀	na 🗆	
5. Were all sai	mples received at a tempera	ture of >0° C to 6.0°C			No 🗹	NA 🗀	
		Samples wer			se same day and No	<u>¢niileo.</u>	
6. Sample(s) i	in proper container(s)?		Yes		140		
7. Sufficient se	ample volume for indicated to	est(s)?	Yes		No 🗆		
8. Are sample	s (except VOA and ONG) pro	party preserved?	Yes		No 🗀	🗖	
9. Was preser	rvative added to bottles?		Yes		No 🗹	NA 🗆	
10.VQA vials h	nave zero headspace?		Yes		No 🗆	No VOA Vials 🗹	
	sample containers received t	oroken?	Yes		No 🗹	# of preserved	5
				-	🗆	bottles checked	(
	rwork match bottle labels?		Yes		No 🗆	for pH:	r >12 unless noted)
	epancies on chain of custody		Yes		No 🗆	Adjusted	NO .
	es correctly identified on Cha		Yes		No 🗔		· x 2/
	hat analyses were requested) r	Yes		No 🗀	Checked by:	
15. Were all ho (If no, notif	olding times able to be met? y customer for authorization.)	, 00	_			W, C
Special Han	dling (if applicable)				_		
16. Was client	notified of all discrepancies	with this order?	Yes		No L	na 🐼	
Pers	on Notified:	Date	<u> </u>				,
By W	Vhom:	Via:	☐ eM	ail [] Phone 🗌 Fax	In Person	
Rega	arding:						
Clier	nt Instructions:						
17. Additional	i remarks:						
18. <u>Cooler In</u> Cooler		Seal Intact Seal No	Seal D	ate	Signed By	1	
1	13.4 Good	Not Present				l	•

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S	Client: Epuer Water	_	Mailing Address: POBOX 3%	Edlerwood	Phone #: 505-228-	email or Fax#: Mbutte_(October. Low	QA/QC Package:	Standard	Accreditation	5	☐ EDD (Type)		13-174 MBD						-	\vdash				-	F	12-14/143	Date: Time:	E De
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Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

January 13, 2015

Mike Butler EPCOR Water PO Box 370 Edgewood, NM 87015 TEL: (505) 228-6233

FAX

RE: Edgewood WWTP

OrderNo.: 1412885

Dear Mike Butler:

Hall Environmental Analysis Laboratory received 2 sample(s) on 12/17/2014 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report Lab Order 1412885

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/13/2015

3

CLIENT: EPCOR Water

Lab ID:

Client Sample ID: Effluent

Project: Edgewood WWTP

1412885-001

Collection Date: 12/17/2014 2:00:00 PM

Matrix: AQUEOUS Received Date: 12/17/2014 3:40:00 PM Analyses Result **RL Oual Units DF** Date Analyzed Batch EPA METHOD 8011/504.1: EDB Analyst: LRW 1.2-Dibromoethane ND 0.010 μg/L 1 12/18/2014 4:05:17 PM 16901 **EPA METHOD 8082: PCB'S** Analyst: SCC Aroclor 1016 ND 1.0 µa/L 12/29/2014 2:01:05 PM 16966 1 Aroclor 1221 ND 1.0 μg/L 1 12/29/2014 2:01:05 PM 16966 Aroclor 1232 ND 1.0 μg/L 1 12/29/2014 2:01:05 PM 16966 Aroclor 1242 ND 1.0 μg/L 1 12/29/2014 2:01:05 PM 16966 Aroclor 1248 ND 1.0 μg/L 1 12/29/2014 2:01:05 PM 16966 Aroclor 1254 ND 1.0 μg/L 12/29/2014 2:01:05 PM Aroclor 1260 ND 1.0 μg/L 1 12/29/2014 2:01:05 PM 16966 Surr: Decachlorobiphenyl 76.8 26.3-122 %REC 1 12/29/2014 2:01:05 PM 16966 Surr: Tetrachloro-m-xylene 60.0 33.8-120 %REC 1 12/29/2014 2:01:05 PM 16966 **EPA METHOD 8310: PAHS** Analyst: SCC Naphthalene ND 2.0 μg/L 12/23/2014 3:56:43 PM 16968 1 1-Methylnaphthalene ND 2.0 μg/L 1 12/23/2014 3:56:43 PM 16968 2-Methylnaphthalene ND 2.0 μg/L 1 12/23/2014 3:56:43 PM 16968 Acenaphthylene ND 2.5 μg/L 1 12/23/2014 3:56:43 PM 16968 Acenaphthene ND 2.0 μg/L 1 12/23/2014 3:56:43 PM 16968 Fluorene ND 0.80 μg/L 12/23/2014 3:56:43 PM Phenanthrene ND 0.60 μg/L 1 12/23/2014 3:56:43 PM 16968 Anthracene ND 0.60 μq/L 1 12/23/2014 3:56:43 PM 16968 Fluoranthene ND 0.30 μg/L 1 12/23/2014 3:56:43 PM Pyrene ND 0.30 μg/L 1 12/23/2014 3:56:43 PM 16968 Benz(a)anthracene ND 0.070 μg/L 1 12/23/2014 3:56:43 PM 16968 Chrysene ND 0.20 μg/L 1 12/23/2014 3:56:43 PM 16968 Benzo(b)fluoranthene ND 0.10 μg/L 1 12/23/2014 3:56:43 PM Benzo(k)fluoranthene ND 0.070 μg/L 1 12/23/2014 3:56:43 PM 16968 Benzo(a)pyrene ND 0.070 μg/L 1 12/23/2014 3:56:43 PM 16968 Dibenz(a,h)anthracene ND 0.12 μg/L 1 12/23/2014 3:56:43 PM 16968 Benzo(g,h,i)perylene ND 0.12 μg/L 1 12/23/2014 3:56:43 PM Indeno(1,2,3-cd)pyrene ND 0.25 μg/L 1 12/23/2014 3:56:43 PM 16968 Surr: Benzo(e)pyrene 68.2 30.8-125 %REC 1 12/23/2014 3:56:43 PM 16968 **EPA METHOD 300.0: ANIONS** Analyst: Igp Fluoride 0.10 0.10 mg/L 1 12/19/2014 3:37:45 AM R23248 Chloride 570 25 mg/L 12/23/2014 11:42:54 PM R23340 Nitrogen, Nitrate (As N) 2.9 2.0 mg/L 12/19/2014 3:50:10 AM R23248 Sulfate 48 10 mg/L 12/19/2014 3:50:10 AM R23248

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Oualifiers:

- Value exceeds Maximum Contaminant Level.
- Ε Value above quantitation range

EPA METHOD 200.7: DISSOLVED METALS

- J Analyte detected below quantitation limits
- o RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 1 of 21

Analyst: JLF

- Sample pH greater than 2.
- RLReporting Detection Limit

Analytical Report

Lab Order 1412885 Date Reported: 1/13/2015

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: Effluent

Edgewood WWTP Project:

Collection Date: 12/17/2014 2:00:00 PM

1412885-001 Lab ID:

CLIENT: EPCOR Water

Matrix: AQUEOUS

Received Date: 12/17/2014 3:40:00 PM

Analyses	Result	RL Qu	ial Units	DF Date Analyzed Bate	ch
EPA METHOD 200.7: DISSOLVED ME	TALS			Analyst: JLF	F
Aluminum	0.065	0.020	mg/L	1 12/23/2014 1:28:07 PM R23	
Barium	0.29	0.0020	mg/L	1 12/23/2014 1:28:07 PM R23	
Boron	0.097	0.040	mg/L	1 12/23/2014 1:28:07 PM R23	
Cadmium	ND	0.0020	mg/L	1 12/23/2014 1:28:07 PM R23	
Chromium	ND	0.0060	mg/L	1 12/23/2014 1:28:07 PM R23	
Cobalt	ND	0.0060	mg/L	1 12/23/2014 1:28:07 PM R23	
Copper	0.046	0.0060	mg/L	1 12/23/2014 1:28:07 PM R23	
iron	0.068	0.020	mg/L	1 12/23/2014 1:28:07 PM R23	
Manganese	0.0027	0.0020	mg/L	1 12/23/2014 1:28:07 PM R23	
Molybdenum	ND	0.0080	mg/L	1 12/23/2014 1:28:07 PM R23	
Nickel	ND	0.010	mg/L	1 12/23/2014 1:28:07 PM R23	
Silver	ND	0.0050	mg/L	1 12/23/2014 1:52:43 PM R23	
Zinc	0.048	0.010	mg/L	1 12/23/2014 1:28:07 PM R23	3329
EPA 200.8: DISSOLVED METALS				Analyst: JL l	F
Arsenic	ND	0.0010	mg/L	1 1/7/2015 6:50:11 PM R2:	3526
Lead	ND	0.0010	mg/L	1 1/7/2015 6:50:11 PM R2:	3526
Selenium	0.0015	0.0010	mg/L	1 1/7/2015 6:50:11 PM R2:	3526
Uranium	0.0042	0.0010	mg/L	1 1/7/2015 6:50:11 PM R2:	3526
EPA METHOD 245.1: MERCURY				Analyst: MM	M D
Mercury	ND	0.00020	mg/L	1 12/23/2014 2:09:39 PM 169	959
EPA METHOD 8260B: VOLATILES				Analyst: DJ	
Benzene	ND	1.0	µg/L	1 12/26/2014 2:14:46 PM R2	
Toluene	ND	1.0	μg/L	1 12/26/2014 2:14:46 PM R2	:3369
Ethylbenzene	ND	1.0	μg/L	1 12/26/2014 2:14:46 PM R2	
Methyl tert-butyl ether (MTBE)	ND	1.0	μg/L	1 12/26/2014 2:14:46 PM R2	
1,2,4-Trimethylbenzene	ND	1.0	μg/L	1 12/26/2014 2:14:46 PM R2	
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1 12/26/2014 2:14:46 PM R2	
1,2-Dichloroethane (EDC)	ND	1.0	μg/L		23369
1,2-Dibromoethane (EDB)	ND	1.0	μg/L	1 1220/2011	23369
Naphthalene	ND	2.0	μg/L	1 12/26/2014 2:14:46 PM R2	
1-Methylnaphthalene	ND	4.0	μg/L	1 12/26/2014 2:14:46 PM R2	
2-Methylnaphthalene	ND	4.0	μg/L	1 12/20/20 11 11 11 11 11	23369
Acetone	ND	10	μg/L	1 12/20/2017	23369
Bromobenzene	ND	1.0	μg/L	1 12,20,201	23369
Bromodichloromethane	ND	1.0	μg/L	1 12/26/2014 2:14:46 PM R2	
Вготоботп	ND	1.0	μg/L	1 12/26/2014 2:14:46 PM R2	
Bromomethane	ND	3.0	μg/L	1 12/26/2014 2:14:46 PM R2	
2-Butanone	ND	10	μg/L	1 12/26/2014 2:14:46 PM R2	23369

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range Ε
- Analyte detected below quantitation limits
- RSD is greater than RSDlimit
- RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank В
- Holding times for preparation or analysis exceeded Н
- ND Not Detected at the Reporting Limit
 - Page 2 of 21
- Sample pH greater than 2.
- RL Reporting Detection Limit